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EXAMINER	
KARIMI, PEGEMAN	
ART UNIT	PAPER NUMBER
2629	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/522,747	FURUHASHI ET AL.	
	Examiner	Art Unit	
	PEGEMAN KARIMI	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *2 and 5* is/are allowed.

6)☒ Claim(s) *1, 3, 4, 6-12* is/are rejected.

7)☒ Claim(s) *13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 03/31/2009 has been entered and considered by the examiner.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13 recite the limitation "the move distance". There is insufficient antecedent basis for this limitation in the claims.

Claims 1-12 recite the limitation “the number of cycles of sampling”. There is insufficient antecedent basis for this limitation in the claims.

Claim 13 is rejected because it depends upon a rejected claim 1.

Claim 13 recites the limitation “the fixed value predetermined threshold” in line 3. There is insufficient antecedent basis for this limitation in the claims.

Claim Objections

3. Claim 13 is objected to because of the following informalities:

Claim 13 would be read better if the limitation is changed to read “wherein sampling of angular velocity values of the pointing device are performed at sampling cycles of predetermined time intervals, and wherein if the move distance of the pointing device exceeds a fixed value predetermined threshold for a predetermined number of successive said cycles of sampling, selection marker is moved to the menu item.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato (U.S. Patent No. 5,453,758).

As to claim 1, Sato teaches a pointing device (10) equipped with means for detecting angular velocities (1y and 1x, Fig. 7) in horizontal and vertical directions (col. 5, lines 45-49) and

means (8) for transmitting detected angular velocity information (col. 4, lines 13-16) and

an image display device (24) having means (21, Fig. 5) for receiving angular velocity information (movement of the pointing device) transmitted from the pointing device (10), (col. 4, lines 29-32) and equipped with a function of moving a selection marker (Cursor K, col. 4, lines 45-47) across a plurality of menu items (menu of TV, CD, and VTR, Fig. 6) arranged in vertical and horizontal directions (menu items of Fig. 6 are arranged in a vertical and horizontal direction) and

displayed on a screen in accordance with the received angular velocity information (col. 4, lines 42-47),

the display apparatus (24) for presentation characterized by provision of means (7) for determining a menu item (col. 4, lines 48-53) to which the selection marker (cursor K) should be moved (determining the menu item of playback) in accordance with the duration of sampling the angular velocities (Fig. 2) during which the move distance (up or down) of the pointing device (1) obtained for every sampling cycle from said angular velocity information exceeds a predetermined value continuously (when the pointing device 1 exceeds a predetermined value of Vc continuously in the third sampling cycle, which is located between Vc and Vd, the cursor is moved in a direction)

wherein the selection marker (K) moves directly to a menu item (moving the cursor to a location equivalent to a playback button by moving the pointing device 10) when the number of cycles of sampling the angular velocities during which the move distance of the pointing device obtained for every sampling cycle (the move distance of the pointing device obtained at the sampling cycle of between Vc and Vd for the sampling the angular velocity causes the cursor to move up and the move distance of the pointing device obtained at the sampling cycle of between Va and Vb for the sampling angular velocity causes the cursor to move down) from said angular velocity information (the angular velocity, ω, fig. 2) exceeds a predetermined value continuously (when the value of Vc is exceeded the movement of the cursor is always upward and when the value of Vb is exceeded the movement of the cursor is always downward).

As to claim 6, this claim differs from claim 1, only in that the limitation "equipped with a function of moving a cursor or pointer displayed on a screen" and "means for moving the cursor or pointer by a distance" are additionally recited.

Sato teaches an image display device equipped with a function (Fig. 3) of moving a cursor or pointer (10) displayed on a screen (col. 4, lines 45-47) and means (1x and 1y) for moving the cursor or pointer (moving the cursor in a certain direction of horizontal or vertical), (col. 5, lines 45-49).

wherein the distance over an interval of time increases (As can be seen in Fig. 2 and Fig. 3, the cursor is moved in a certain direction when the angular velocity exceeds a threshold of Vc), (col. 13, lines 3-6) while the number of cycles of sampling the angular velocities during which the move distance of the pointing device obtained for every sampling cycle from said angular velocity information exceeds a predetermined value continuously (as can be seen in Fig. 2, when the angular velocity exceeds the value of Vc the output command is a movement in a certain direction and when the angular velocity exceeds the value of Vb the output command is a movement in another direction).

6. Claims 8-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hashimoto (U.S. Patent No. 5,554,980).

As to claim 8, Hashimoto teaches a display system comprising:

a display device (100) and

a pointing device (1) associated with the display device (pointing device 1 controls a cursor, 108, which chooses the icons on the display device) and for use to operate upon an object (108) to change displayed on a display screen by said display device (upon selection of VTR in the menu 220 of Fig. 7, the color of the cursor changes and the VTR mode menu screen 223 appears).

the display system characterized by including:

a position information detecting means (2 and 3) for detecting position information on positions indicated by said pointing device (col. 14, lines 15-18);

a move information sampling means (67, 68, and 68a) for sampling the move distance between said indicated positions (e.g. positions before and after the position Y1) per unit time (from the start to time t1 cursor moves to position Y1, from position t1 to (t1+t2) the cursor does not move, and then from (t1+t2) to time t the cursor moves), (col. 29, lines 2-7), based on the position information detected by the position information detecting means (as can be seen in Fig. 45A, the output of the angular speed depends on detectors 2 and 3), (col. 29, lines 10-14); and

a change amount determining means (67, 68, and 68a, the distance through which the cursor 108 moves when the delay time t of the delay circuit 67 is equal to t1+t2) for determining the amount of change of said object to change on said display screen (col. 28, lines 65-67), based on the duration of sampling (from start to t1, from t1 to (t1+t2), and then from (t1+t2) to t) during which the move distance between said indicated positions per unit time (from start to t1 the cursor moves to position Y1, from time t1 to (t1+t2) the cursor does not move, and then from time (t1+t2) to t the cursor

moves once again), sampled by the move information sampling means (67, 68, and 68a), (col. 28, lines 60-67, & col. 29, lines 2-6), exceeds a threshold continuously (the cursor moves up to Y1 from the start to time t1 but when it exceeds t1 it does not move from t1 to t2, then the cursor moves once again when the angular velocity exceeds t1+t2).

wherein the amount of change of the object over an interval of time increases (changing/increasing the Y direction of the object from the position zero to Y1 in the time interval of t1) while the number of cycles (3 cycles), (from time zero to t1, from t1 to (t1+t2), and from (t1+t2) to t) of sampling the angular velocities (the angular speed detectors detect the speed of angular motion in the horizontal and vertical directions) during which the move distance of the pointing device (e.g. move to Y1, Fig. 45B) obtained for every sampling cycle (from time zero to t1, from t1 to (t1+t2), and from (t1+t2) to t) from said angular velocity information exceeds a predetermined value continuously (the cursor moves up to Y1 from the start to time t1, this is due to the movement of the pointing device exceeding a value of “a”, Fig. 42a, the position does not move from t1 to t2 because the value of "a" is exceeded and the output is a stationary position, then the cursor moves once again when the angular velocity detects a value of “a” being exceeded).

As to claim 9, Hashimoto teaches a pointing device (1) associated with a display device (pointing device 1 controls a cursor, 108, which chooses the icons on the display device) and for use to operate upon an object (108) to change displayed on a display

screen by the display device (upon selection of VTR in the menu 220 of Fig. 7, the color of the cursor changes and the VTR mode menu screen 223 appears),

the pointing device (1) characterized by including a position information detecting means (2 and 3) for detecting position information on positions indicated by the pointing device (col. 14, lines 15-25), wherein, based on the position information (position information from elements 2 and 3), the position information detecting means samples the move distance between said indicated positions (e.g. positions before and after the position Y1) per unit time (from the start to time t1 cursor moves to position Y1, from position t1 to (t1+t2) the cursor does not move, and then from (t1+t2) to time t the cursor moves), (col. 29, lines 2-7) and

determines the amount of change of said object to change on said display screen (the cursor 108 moves when the delay time t of the delay circuit 67 is equal to t1+t2), (col. 23, lines 44-48),

based on the duration of sampling (from start to t1, from t1 to (t1+t2), and then from (t1+t2) to t) during which the sampled move distance between said indicated positions per unit time exceeds a threshold continuously (the cursor moves up to Y1 from the start to time t1, this due to the movement of the pointing device exceeding a value of “a”, Fig. 42a, the position does not move from t1 to t2 because the value of "a" is exceeded and the output is a stationary position, then the cursor moves once again when the angular velocity detects a value of “a” being exceeded),

wherein the amount of change of the object over an interval of time increases (changing/increasing the Y direction of the object from the position zero to Y1 in the

time interval of t1, and at the position of Y1 and timing t1+t2 the distance increases over an interval of time t, Fig. 45B) while the number of cycles (3 cycles), (from time zero to t1, from t1 to (t1+t2), and from (t1+t2) to t) of sampling the angular velocities (the angular speed detectors detect the speed of angular motion in the horizontal and vertical directions) during which the move distance of the pointing device (e.g. move to Y1, Fig. 45B) obtained for every sampling cycle (from time zero to t1, from t1 to (t1+t2), and from (t1+t2) to t) from said angular velocity information exceeds a predetermined value continuously (the cursor moves up to Y1 from the start to time t1, this due to the movement of the pointing device exceeding a value of “a”, Fig. 42a, the position does not move from t1 to t2 because the value of "a" is exceeded and the output is a stationary position, then the cursor moves once again when the angular velocity detects a value of “a” being exceeded),

As to claim 10, Hashimoto teaches a display device (100) associated with a pointing device (pointing device, 1, controls a cursor, 108, which chooses the icons on the display device) for use to operate upon an object (108) to change on a display screen (upon selection of VTR in the menu 220 of Fig. 7, the color of the cursor changes and the VTR mode menu screen 223 appears),

the display device characterized by including:

a change amount determining means (67, 68, and 68a), wherein, based on position information (information from elements 2 and 3) on positions indicated by said pointing device (positions in horizontal and vertical directions), the change amount

determining means samples the move distance between said indicated positions (position before and after Y1) per unit time (from start to t1, from t1 to (t1+t2), and then from (t1+t2) to t) and

determines the amount of change of said object to change on said display screen (the cursor 108 moves when the delay time t of the delay circuit 67 is equal to t1+t2), based on the duration of sampling (from start to t1, from t1 to (t1+t2), and then from (t1+t2) to t) during which the sampled move distance between said indicated positions per unit time exceeds a threshold continuously (the cursor moves up to Y1 from the start to time t1, this due to the movement of the pointing device exceeding a value of “a”, Fig. 42a, the position does not move from t1 to t2 because the value of "a" is exceeded and the output is a stationary position, then the cursor moves once again when the angular velocity detects a value of “a” being exceeded),

wherein the amount of change of the object over an interval of time continuously increases (changing/increasing the Y direction of the object from the position zero to Y1 in the time interval of t1, and the distance increases from position Y1 at timing t1+t2 based on the timing t) while the number of cycles (3 cycles), (from time zero to t1, from t1 to (t1+t2), and from (t1+t2) to t) of sampling during which the sampled move distance (e.g. move to Y1, Fig. 45B) between said indicated positions per unit time exceeds a threshold continuously (the cursor moves up to Y1 from the start to time t1, this due to the movement of the pointing device exceeding a value of “a”, Fig. 42a, the position does not move from t1 to t2 because the value of "a" is exceeded and the output is a

stationary position, then the cursor moves once again when the angular velocity detects a value of "a" being exceeded).

As to claim 11, this claim differs from claim 8 only in that the limitation "an angular velocity detecting means for detecting angular velocity information on positions indicated by said pointing device" and "a move information sampling means for sampling the move distance between said indicated positions per unit time, based on the angular velocity information detected by the angular velocity detecting means" is additionally recited.

Hashimoto teaches an angular velocity detecting means (2 and 3), for detecting angular velocity information on positions indicated by said pointing device (col. 14, lines 15-25) and a move information sampling means (67, 68 , and 68a) for sampling the move distance between said indicated positions (e.g. positions before and after the position Y1) per unit time (from the start to time t1, from time t1 to time (t1+t2), and then from time (t1+t2) to time t), (col. 9, lines 2-7), based on the angular velocity information detected by the angular velocity detecting means (col. 29, lines 10-14), (the angular speed detectors detect the speed of angular motion in the horizontal and vertical directions).

wherein the amount of change of the object over an interval of time increases (changing/increasing the Y direction of the object from the position zero to Y1 in the time interval of t1, and the amount of movement from Y1 at timing t1+t2 increases based on time t, Fig. 45B) while the number of cycles (3 cycles), (from time zero to t1,

from t1 to (t1+t2), and from (t1+t2) to t) of sampling during which the sampled move distance (e.g. move to Y1, Fig. 45B) between said indicated positions per unit time exceeds a threshold continuously (the cursor moves up to Y1 from the start to time t1, this is due to the movement of the pointing device exceeding a value of “a”, Fig. 42a, the position does not move from t1 to t2 because the value of "a" is exceeded and the output is a stationary position, then the cursor moves once again when the angular velocity detects a value of “a” being exceeded).

As to claim 12, Hashimoto teaches a display system comprising:

a display device (100) and

a pointing device (1) associated with the display device (pointing device 1 controls a cursor, 108, which chooses the icons on the display device) and for use to move a pointer position pointing on a display screen displayed by said display device (col. 21, lines 62-65), the display system characterized by including:

a position information detecting means (2 and 3) for detecting position information on positions indicated by said pointing device (col. 14, lines 15-18);

a move information sampling means (67, 68, and 68a) for sampling the move distance between said indicated positions (e.g. positions before and after the position Y1) per unit time (from the start to time t1 cursor moves to position Y1, from position t1 to (t1+t2) the cursor does not move, and then from (t1+t2) to time t the cursor moves), (col. 29, lines 2-7), based on the position information detected by the position

information detecting means (as can be seen in Fig. 45A, the output of the angular speed depends on detectors 2 and 3), (col. 29, lines 10-14); and

a move distance determining means (67, 68, and 68a), (the distance through which the cursor 108 moves when the delay time t of the delay circuit 67 is equal to t1+t2) for determining a distance by which said pointer position should be moved (from start to t1 the cursor moves to position Y1, from time t1 to (t1+t2) the cursor does not move, and then from time (t1+t2) to t the cursor moves once again), based on the duration of sampling (from start to t1, from t1 to (t1+t2), and from (t1+t2) to t) during which the move distance between said indicated positions per unit of time, sampled by the move information sampling means, exceeds a threshold continuously (the cursor moves up to Y1 from the start to time t1, this due to the movement of the pointing device exceeding a value of “a”, Fig. 42a, the position does not move from t1 to t2 because the value of "a" is exceeded and the output is a stationary position, then the cursor moves once again when the angular velocity detects a value of “a” being exceeded),

wherein the distance over an interval of time increases (changing/increasing the Y direction of the object from the position zero to Y1 in the time interval of t1, also from position Y1 at timing t1+t2 the movement distance increases based on time t) while the number of cycles (3 cycles), (from time zero to t1, from t1 to (t1+t2), and from (t1+t2) to t) of sampling during which the sampled move distance (e.g. move to Y1, Fig. 45B) between said indicated positions per unit time exceeds a threshold continuously (the cursor moves up to Y1 from the start to time t1, this due to the movement of the pointing

device exceeding a value of “a”, Fig. 42a, the position does not move from t1 to t2 because the value of "a" is exceeded and the output is a stationary position, then the cursor moves once again when the angular velocity detects a value of “a” being exceeded).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto in view of Gillick (U.S. Patent No. 5,530,455).

As to claim 3, Hashimoto teaches a display apparatus for presentation (Fig. 4) comprising:

a pointing device (1) equipped with means for detecting angular velocities (2 and 3) in horizontal and vertical directions (col. 14, lines 5-8) and

means for transmitting (12) detected angular velocity information (col. 15, lines 17-24) and

an image display device (21) having means (26 and 132, Fig. 3) for receiving angular velocity information (movement of the pointing device) transmitted from the pointing device (1), (col. 15, lines 45-50).

in accordance with the number of cycles of sampling the angular velocities (sampling from the origin to time t1 and from t1 to t1+t2 then from t1+t2 to t) during which the move distance of the pointing device obtained for every sampling cycle from said angular velocity information exceeds a predetermined value continuously (the cursor moves up to Y1 from the start to time t1, this due to the movement of the pointing device exceeding a value of “a”, Fig. 42a, the position does not move from t1 to t2 because the value of "a" is exceeded and the output is a stationary position, then the cursor moves once again when the angular velocity detects a value of “a” being exceeded),

the number of cycles of sampling the angular velocities during which the move distance of the pointing device obtained for every sampling cycle from said angular velocity information exceeds a predetermined value continuously (the cursor moves up to Y1 from the start to time t1, this due to the movement of the pointing device exceeding a value of “a”, Fig. 42a, the position does not move from t1 to t2 because the value of "a" is exceeded and the output is a stationary position, then the cursor moves once again when the angular velocity detects a value of “a” being exceeded).

Hashimoto does not mention moving an image displayed on a screen in accordance with the received angular velocity information.

Gillick teaches the panning distance over an interval of time increases (scrolling occurs with ordinary counts from the shaft angle encoder, the rolling/scrolling continues at a constant rate until a terminating event occurs. The function of up arrow of a keyboard can be implemented by the scroll mouse for the function of moving up an

image displayed on a screen in accordance with the received angular velocity information).

image display device (Fig. 7) equipped with a panning function of moving an image displayed on a screen (moving the image one line for each scroll message, col. 5, lines 34-36 and col. 6, lines 1-2) in accordance with the received angular velocity information (col. 6, lines 3-7) and means (24) for panning by a distance (the image will scroll/move one line for each scroll message).

Therefore it would have been obvious to one of ordinary skilled in the art at the time the invention was made to have added the panning function of Gillick to the display apparatus and pointing device of Hashimoto because turning the roller in conjunction with driver software, generates scroll signals to windows which mimics the action of the user clocking in the scroll controls, but without requiring the cursor to be moved to the scroll controls (col. 2, lines 31-34).

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto in view of Okamoto (U.S. Patent No. 5,502,461).

As to claim 4, Hashimoto teaches a display apparatus for presentation comprising a pointing device (1) equipped with means for detecting angular velocities in horizontal and vertical directions (2 and 3, col. 14, lines 5-8) and means (12) for transmitting detected angular velocity information (col. 15, lines 17-24) and an image display device (21) having means (26 and 132, Fig. 3) for receiving angular velocity

information (movement of the pointing device) transmitted from the pointing device (1), (col. 15, lines 45-50) and

in accordance with the received angular velocity information (movement of the cursor, angular speed).

in accordance with the number of cycles (as can be seen in Fig. 45B there are 3 cycles wherein the movement of the cursor is defined) of sampling the angular velocities (the movement of the pointing device 1 depends on the angular velocity detectors 2 and 3, which detect the speed of angular motion in the vertical and horizontal directions) during which the move distance of the pointing device obtained for every sampling cycle (movement from position 0, origin, to Y1 during the timing of t1) from said angular velocity information exceeds a predetermined value continuously (the angular speed detector 2 in fig,. 42A outputs a forward motion when the movement exceeds the predetermined value of a and outputs a backward motion when the movement exceeds the predetermined value of -a), (note: the values of a and –a can be assigned by the user depending on the sensitivity requirements).

wherein the distance moving or enlarging the sub-screen over an interval of time increases while the number of cycles of sampling the angular velocities (Fig. 45B) during which the move distance of the pointing device obtained for every sampling cycle from said angular velocity information exceeds a predetermined value continuously (the move distance from the origin to Y1 is a forward movement toward a positive value of Y1 and requires the user to exceed a value of "a" as can be seen in Fig. 42A in order to

have a continuous movement in the forward direction, the forward movement continues over an interval of time t1 determined by the user).

Okamoto teaches image display equipped with a picture-in-picture function (Fig. 9) to move or enlarge a sub-screen displayed on a screen (enlarging the sub-screen 22, Fig. 10)

including moving or enlarging the sub-screen by a distance (enlarging the screen by for example a distance between point P and point P2 in Fig. 9),

The combination of Okamoto and Hashimoto teaches wherein the distance moving or enlarging the sub-screen over an interval of time increases while the number of cycles of sampling the angular velocities (Fig. 45B) during which the move distance of the pointing device obtained for every sampling cycle from said angular velocity information exceeds a predetermined value continuously (In order to enlarge the menu 22 in Fig. 9 the user requires to put down a pointing device on point P and then move diagonally downward to a point P2, therefore the reference of Hashimoto in Fig. 45B shows a movement in a time interval t1, wherein the movement is from point 0, origin, to a point of Y1). Therefore it would have been obvious to one of ordinary skilled in the art at the time the invention was made to have added the enlarging the menu of Okamoto to the display apparatus and cursor movement of Hashimoto because the user can enlarge the menu by changing the cursor's position by a distance based on a time interval so that the user can easily adjust and control the menu size to his/her desired size.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato in view of Hashimoto.

As to claim 7, this claim differs from claim 6 only in that the limitation "means for changing the rate at which the pointer moves" is additionally recited. Hashimoto teaches means (2 and 3) for changing the rate at which the pointer moves (depending on the angular motion of the remote control at the angle $\theta 1$ the cursor moves a distance of x1 and at the angle $\theta 2$ the cursor moves a distance of x2 and so on), (col. 23, lines 44-50). Therefore it would have been obvious to one of ordinary skilled in the art at the time the invention was made to have added the changing the rate at which the pointer moves of Hashimoto to the display apparatus of Sato because to solve the problem of a positional discrepancy between the position on the screen at which the remote control unit is directed and the position of the cursor after movement. (col. 23, lines 34-39).

As to claim 13. (New) The display apparatus of claim 1, wherein sampling of angular velocity values of the pointing device are performed at cycles of predetermined time intervals, and wherein if the move distance of the pointing device exceeds the fixed value predetermined threshold for a predetermined number of successive cycles of sampling, selection marker is moved to the menu item.

Allowable Subject Matter

11. Claims 2 and 5 are allowed.

12. Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. Claim 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph and the objection under CFR 1.75, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

14. Applicant in the remarks argues that claim 1 requires the selection marker moving directly to a menu item when the number of cycles of sampling the angular velocities during which the move distance of the pointing device obtained for every sampling cycle from said angular velocity information exceeds a predetermined value continuously. The Voltage E and the angular velocity depicted in Fig. 2 are not directed to move distance of the pointing device, as required by the claim.

The selection marker moving directly to a menu item (the cursore K based on the Up command or the Down command supplied from the remote commander 10, moves the cursor K on the display screen. If the user presses the enter key 7 after moving the cursor K to a location e.g. playback button (menu) then the controller reads a command code for the playback button) when the number of cycles of sampling the angular velocities (the sampling cycles are the cycles between Va and Vb, Vb and Vc, and

between Vc and Vd, therefore when the angular velocity w is low and falls in the interval of Va and Vb the controller reads the down command, on the other hand when the angular velocity is higher and falls in the interval of Vc and Vd the up command is performed) during which the move distance of the pointing device (the distance the cursor has moved up and down depending on the movement of the remote commander 10) obtained from every sampling cycle from said angular velocity information (the move distance of the pointing device when the angular velocity is low would fall in the sampling cycle between Va and Vb and would result in a movement of the cursor in a certain direction/distance, when the angular velocity is higher it would fall in the sampling cycle between Vc and Vd and would result in a movement of the cursor in a certain direction/distance) exceeds a predetermined value continuously (if the determined angular velocity exceeds the predetermined Vc value the controller reads the UP command, on the other hand if the angular velocity is lower and exceeds the predetermined value of Vb, wherein the angular velocity falls between Va and Vb the controller reads the Down command).

Applicant argues that the voltage E and the angular velocity depicted in Fig. 2 are not directed to move distance of the pointing deice. Applicant in the claim(s) mentions the term “the move distance” there is insufficient antecedent basis for this limitation in the claim. The limitation of “the move distance of the pointing device" can be interpreted as the move distance of the remote commander by swaying up or swaying down.

applicant argues that UP/DOWN disclosed in Sato teaches the direction in which the commander is moved, not the move distance as claimed. A user needs to move the

pointing device a certain distance in order for the controller to read the UP command or Down command. By moving the pointing device a distance in a certain direction the controller can determined if the user is trying to move the cursor up or down on the display screen.

Applicant argues that even assuming the examiner's interpretation of Up/Down command teaching move distance, the values Va, Vb, Vc, and Vd are used to determine whether an Up/Down command has been made and these teachings are insufficient to teach or suggest moving when the number of cycles of sampling the angular velocities during which the move distance of the pointing device obtained for every sampling cycle from said angular velocity information exceeds a predetermined value continuously.

The intervals Va-Vb, Vb-Vc, and Vc-Vd are considered as cycles of sampling the angular velocities because when the angular velocity is low wherein the value of the angular velocity falls in the interval of Va-Vb the Down command is read. The move distance of the pointing device, which is by swaying the pointing device Up or Down, is obtained for every sampling cycle (the move distance of the pointing device when the angular velocity is low would fall in the sampling cycle between Va and Vb and would result in a movement of the cursor in a certain direction/distance, when the angular velocity is higher it would fall in the sampling cycle between Vc and Vd and would result in a movement of the cursor in a certain direction/distance) exceeds a predetermined value continuously (if the determined angular velocity exceeds the predetermined Vc value the controller reads the UP command, on the other hand if the angular velocity is

lower and exceeds the predetermined value of Vb, wherein the angular velocity falls between Va and Vb the controller reads the Down command).

(note: the swaying action requires the user to move the pointing device a distance, the distance is not a fixed distance because one skilled in the art would understand that the angular velocity created by swaying the pointing device down can fall close to Vb or close to Va in the interval of Va-Vb and still read the down command)

Applicant argues that claim 8 clearly requires determining an amount of change based on the number of cycles of sampling, not the appropriate sample to be selected, as interpreted by the examiner. When element 67 is equal to t1+t2 the distance through which the cursor 108 moves is designated based on line M38 (Fig. 45B), therefore the delay time 67 is a change amount determining means because it can determine the change amount of the cursor based on time t1+t2, which will result in determining the amount of change of the cursor on the display screen. The cursor's position changes based on the cycles, which are intervals from 0 – t1, t1 – (t1+t2), and (t1+t2) – t.

Applicant argues that there is no disclosure in Hashimoto that is directed to a number of cycles of sampling. The number of cycles of sampling is interpreted as the intervals 0 – t1, t1 – (t1+t2), and (t1+t2) – t.

Claim 8 recites the limitation "the number of cycles of sampling" on page 6, line 2, there is insufficient antecedent basis for this limitation in the claim.

Examiner suggests that the applicant describes this limitation in more details in order to overcome the prior art(s).

Applicant argues that claims 9-12 recite "determining information based on the number of cycles of sampling during which the move distance between the indicated positions per unit of time exceeds a threshold continuously".

Examiner would like to mention that the exact argued limitation mentioned above is not mentioned in claims 9-12 exactly as is recited above. For example claims 9 and 10 do not have the term "determining information". Claim 10 mentions "determining means".

determining information based on the number of cycles of sampling during which the move distance between the indicated positions per unit of time exceeds a threshold continuously. The curser's movement to a specific location based on the number of cycles of sampling (0 – t1, t1 – (t1+t2), and (t1+t2) – t) wherein the move distance of the curser e.g. origin (zero) to Y1 is based on the unit of time 0 – t1, also in order for the curser to move in a certain direction and a distance the pointing device must exceed a threshold e.g. t1 in Fig. 45B, wherein any time between t1 -- (t1+t2) is a time exceeded by the time t1 and the device is in a stationary location. The value 'a' in Fig. 42a can also be used as a threshold, wherein the movement of the pointing device to exceed a threshold of 'a', results in movement in a forward direction. When the device is moving in the forward direction the threshold 'a' is exceeded continuously.

Applicant argues that Hashimoto fails to teach or suggest performing an operation in accordance with the number of cycles of sampling the angular velocities during which the move distance of the pointing device obtained for every sampling cycle from said angular velocity information exceeds a predetermined value continuously.

an operation in accordance with the number of cycles of sampling (these cycles are the time intervals as can be seen in Fig. 3, and previously mentioned) the angular velocities (the movement of the pointing device depends on the angular velocity detectors 2 and 3, which detect the horizontal and vertical angular speeds) during which the move distance of the pointing device obtained for every sampling cycle from said angular velocity information exceeds a predetermined value continuously (the movement during the cycles wherein from time 0 to t1 the movement is from position 0 to Y1 and from time t1 to time (t1+t2) there is no movement and from time (t1+t2) to t the movement is toward location Y2. During this movement when device passes the e.g. t1+t2 threshold the movement is from location Y1 toward the location Y2, so after the threshold t1+t2 the threshold is exceeded continuously.

The examiner can also interpret the threshold ‘a’ in Fig. 42a wherein when the device is in a forward movement the threshold value of 'a' is exceeded until the device is stationary and the threshold 'a' is not exceeded.

Okamoto teaches enlarging and changing the size of character writing frames, wherein by changing the location of the cursor of the Hahimoto one skilled in the art can understand that the curser is similar to the pen "1c" of Okamoto and by changing the location of the curser one can adjust the size of the writing frames of Okamoto.

Applicant argues that Sato fails to teach or suggest performing an operation in accordance with the number of cycles of sampling the angular velocities during which the move distance of the pointing device obtained for every sampling cycle from said angular velocity information exceeds a predetermined value.

The argued limitation above has been addressed above in the 'Response to Arguments', and the reference of Hashimoto teaches when the remote control is at the angle of $\theta 1$ the cursor moves a distance of x1 and at the angle of $\theta 2$ the cursor moves a distance of x2).

Examiner would like to point out to the suggestion(s) given in the office action dated 1/14/2009. Examiner would also like to mention the terms "the number of cycles of sampling the angular velocities", "sampling", and "the move distance" should be defined in more details in order to overcome the prior art references.

Inquiry

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PEGEMAN KARIMI whose telephone number is (571)270-1712. The examiner can normally be reached on Monday-Thursday 9:00am - 5:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571) 272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pegeman Karimi/
Examiner, Art Unit 2629
June 30, 2009

/Chanh Nguyen/
Supervisory Patent Examiner, Art Unit 2629